



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,320	07/25/2005	Birger Hansson	5822.315USWO	1474
23552 7590 02/18/2010 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER				
CULLER, JILL E				
ART UNIT		PAPER NUMBER		
2854				
MAIL DATE		DELIVERY MODE		
02/18/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,320

Applicant(s)

HANSSON ET AL.

Examiner

Jill E. Culler

Art Unit

2854

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- _____ Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- _____ Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,299,495 to Schoeps et al. in view of U.S. Patent No. 5,040,457 to Lin and U.S. Patent No. 3,788,273 to Tusch et al.

With respect to claim 1, Schoeps et al. teaches a method for keeping a number of spray nozzles, 7, in a printing press spray beam clean, wherein air with a certain flow rate is supplied to covers, each separate cover surrounding spray nozzles and having an opening for a spray cone from the spray nozzle, wherein the air flow rate is controlled by means of a throttling device connected to each separate cover, and wherein the air flow is low enough not to disturb the spray from the nozzle. See column 3, lines 21-24 and column 4, lines 19-23 and lines 54-59.

As discussed in previous rejections, Schoeps et al. is silent with respect to the number of nozzles assigned to each cover device, however it is reasonable to assume from the disclosure of Schoeps et al. that a cover might readily be used with a single nozzle or with a plurality of nozzles. Additionally, Tusch et al. teaches it is known in the prior art to have a plurality of spray nozzles which are covered by a single cover, see Fig. 5, or which each have an individual cover, see Fig. 10.

Given these teachings, it would have been obvious to one having ordinary skill in the art at the time of the invention that Schoeps et al. could be provided with a plurality of nozzles which each have an individual cover in order to more specifically control the output of each nozzle.

Schoeps et al. does not explicitly teach that the opening is constructed to not disturb the spray from the nozzle. Although the term disturb has a broad definition, it is acknowledged that Schoeps et al. teaches the openings are covered by screens and therefore one having ordinary skill in the art would likely consider the spray to be disturbed as it passed through these screens.

Lin teaches spray nozzles in a printing press spray beam wherein an opening for a spray cone from the spray nozzle is constructed so as not to disturb the spray from the nozzle. See column 3, lines 4-19 and Fig. 2.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the spray nozzles of Schoeps et al. to have openings which do not disturb the spray from the nozzle, as taught by Lin, in order to allow the spray to leave the spray beam more smoothly.

With respect to claim 2, Schoeps et al. teaches a device for keeping a number of spray nozzles, 7, in a printing press spray beam clean, each spray nozzle being surrounded by a cover comprising an opening for a spray cone from the spray nozzle, wherein each cover is connected to air flow control means, each air flow control means comprising a throttling device that restricts the air flow such that the air flow is low

enough to leave the spray cone undisturbed. See column 3, lines 21-24 and column 4, lines 19-23 and lines 54-59.

As discussed in previous rejections, Schoeps et al. is silent with respect to the number of nozzles assigned to each cover device, however it is reasonable to assume from the disclosure of Schoeps et al. that a cover might readily be used with a single nozzle or with a plurality of nozzles. Additionally, Tusch et al. teaches it is known in the prior art to have a plurality of spray nozzles which are covered by a single cover, see Fig. 5, or which each have an individual cover, see Fig. 10.

Given these teachings, it would have been obvious to one having ordinary skill in the art at the time of the invention that Schoeps et al. could be provided with a plurality of nozzles which each have an individual cover in order to more specifically control the output of each nozzle.

Schoeps et al. does not explicitly teach that the opening is constructed to not disturb the spray from the nozzle. Although the term disturb has a broad definition, it is acknowledged that Schoeps et al. teaches the openings are covered by screens and therefore one having ordinary skill in the art would likely consider the spray to be disturbed as it passed through these screens.

Lin teaches spray nozzles in a printing press spray beam wherein an opening for a spray cone from the spray nozzle is constructed so as not to disturb the spray from the nozzle. See column 3, lines 4-19 and Fig. 2.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the spray nozzles of Schoeps et al. to have openings which do not disturb the spray from the nozzle, as taught by Lin, in order to allow the spray to leave the spray beam more smoothly.

With respect to claims 3 and 4, Schoeps et al. teaches that the opening in the cover has the form of a slot and each cover is provided with a drainage hole. See column 4, lines 54-66 and Fig. 1.

With respect to claim 5, Schoeps et al. teaches an external air conduit, 17, connected to the covers. See column 3, lines 54-56.

With respect to claim 8, Schoeps et al. teaches each cover is formed as a short sleeve connected to a spray valve cap and having an end plate, 12, 13, attached to its end remote from the spray nozzle, the end plate being provided with the opening. See column 3, lines 27-38 and Fig. 2.

With respect to claim 9, Schoeps et al. teaches a method for keeping a number of spray nozzles, 7, in a printing press spray beam clean, comprising providing an overpressure environment around each spray nozzle in a spray beam having a plurality of spray nozzles by providing a cover in connection with an air conduit wherein air flow is controlled by a throttling device, and generating a spray cone from each spray nozzle which passes through an opening in the cover. See column 3, lines 21-24 and column 4, lines 19-23 and lines 54-59.

As discussed in previous rejections, Schoeps et al. is silent with respect to the number of nozzles assigned to each cover device, however it is reasonable to assume

from the disclosure of Schoeps et al. that a cover might readily be used with a single nozzle or with a plurality of nozzles. Additionally, Tusch et al. teaches it is known in the prior art to have a plurality of spray nozzles which are covered by a single cover, see Fig. 5, or which each have an individual cover, see Fig. 10.

Given these teachings, it would have been obvious to one having ordinary skill in the art at the time of the invention that Schoeps et al. could be provided with a plurality of nozzles which each have an individual cover in order to more specifically control the output of each nozzle.

Schoeps et al. does not explicitly teach that the opening is constructed to not disturb the spray from the nozzle. Although the term disturb has a broad definition, it is acknowledged that Schoeps et al. teaches the openings are covered by screens and therefore one having ordinary skill in the art would likely consider the spray to be disturbed as it passed through these screens.

Lin teaches spray nozzles in a printing press spray beam wherein an opening for a spray cone from the spray nozzle is constructed so as not to disturb the spray from the nozzle. See column 3, lines 4-19 and Fig. 2.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the spray nozzles of Schoeps et al. to have openings which do not disturb the spray from the nozzle, as taught by Lin, in order to allow the spray to leave the spray beam more smoothly.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoeps et al. in view of Lin and Tusch et al., as applied to claims 1-5 and 8-9 above, and further in view of U.S. Patent No. 2,448,226 to Marsden.

Schoeps et al., Tusch et al. and Lin teach all that is claimed, as in the above rejection of claims 1-5 and 8-9, except that a spray valve for the spray nozzle is provided with an internal air conduit and an air bore connected to the cover, wherein the air bore has such a diameter that a throttling effect is obtained.

Marsden teaches a spray valve for a spray nozzle, G, provided with an internal air conduit, 45, and an air bore, 46, connected to the cover, wherein the air bore has such a diameter that a throttling effect is obtained. See column 4, lines 45-62 and Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the apparatus of Schoeps et al. to have the internal air conduit and air bore of Marsden in order to better control the direction of the air flow into the cover.

Response to Arguments

Applicant's arguments filed September 10, 2009 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986). The differences between applicant's claimed invention and the teachings of Schoeps must be viewed in light of the rejections, which have been made in combination with other references.

In response to applicant's argument that Schoeps does not teach that "the air flow is low enough not to disturb the spray from the nozzle", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, Schoeps is silent as to the speed of the air flow and contains additional structures, as discussed, which deliberately change the spray from the nozzle. However, the air flow is clearly controlled, and therefore Schoeps has the structural elements necessary to set this air flow at a desired level for an intended application.

In response to applicant's claim that Lin does not teach that the cover leaves the spray undisturbed, as there are claims of spray shields, these structures appear to be equivalent to the spray casing, 4, seen in applicant's Figure 1, and therefore are not deemed to disturb the spray any more significantly than applicant's claimed structure.

In response to applicant's argument that modifying Schoeps et al. would destroy the teachings of providing a uniform moisture distribution on the cylinder, Lin is also concerned with providing a uniform distribution of moisture on a cylinder and therefore the two references, seeking to solve the same problem, should be readily combined to achieve the advantages of each of the inventions, as discussed in the above rejection.

In response to applicant's argument that Tusch et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir.1992). In this case, Tusch et al. is concerned with spraying a liquid onto an object and therefore is considered to be in the field of applicant's endeavor.

In response to applicant's further arguments against the function of Tusch et al., this reference is relied upon merely for the teaching of substituting an individual nozzle cover for a cover surrounding several spray nozzles, and therefore the use of compressed air with these nozzles is taught by Schoeps and not required of Tusch et al. in order to make the rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571)272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

/Jill E. Culler/
Primary Examiner, Art Unit 2854